is the same... is not the same (2004)
alto saxophone and computer
for C.R. Kasprzyk

Robert Hamilton
is the same... is not the same

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Performance Notes - Saxophone

Multiphonic Glissandi

Throughout is the same...is not the same...there occurs a series of multiphonic saxophone pitches, notated as vertically-stacked chords surrounded by a numerically sub-scripted box. In certain cases, pitches played before and/or after the multiphonic are linked to the chord with arrows. These arrows are to signify a gradual (if possible) transition from either the notated single pitch to the specified multiphonic chord, or vice versa, the transition from the multiphonic to the notated single pitch. The saxophonist is free to decide how to best enable these transitions using either varying lip pressures, false fingerings, or any other means possible.

For more information regarding specific multiphonics found within this piece, see Appendix A found at the back of the score.

\((-\), \(+-\), \& \(=\))

These notations marks notes that should be played with approximately 1/4 tone sharp, \(+-\), or 1/4 tone flat, \(-\) respective of the actual written note. The intention is not that the 1/4 tone need be played precisely, instead the marking is used to bring out the flattening or sharpening of a specific note. To that end, the flattening or sharpening should be played as a slight glissando or bend towards the intended 1/4 tone over the period of the indicated note.

In addition, the symbol \(=\) is used to signify a return to standard tuning; from a sharpened or flattened note.

Grace-note Trills

When Trill markings are prefaced with a grace note, the intent is for the grace note to be played in a standard manner preceding the trill figure, then for the trill to be subsequently played as written with alternations between the starting pitch and the secondary pitch notated as a smaller note-head underneath the "tr" bracket.

Quasi-pitched Tongue-Slaps

While saxophone tongue-slaps are notated at pitch (with the use of "x" note-heads), the intent is not to sound the specific pitch notated, but instead is to show approximate and relative pitches for the slaps. It is not necessary for the performer to attempt to sound the notated pitch but instead attempts should be made to preserve a basic relative pitch structure from one tongue slap to the next.

In addition, any tongue slaps notated as the A below the staff should be interpreted as the lowest tongue slap possible.

Octave Harmonic Trills

With the given notation, a trill between thenotes with standard note-heads is transformed over the course of the trill to a trill between the same notes, one octave lower. A combination of decreasing lip pressure and/or the octave-thumb key can be used to create a transition rich in harmonic frequencies. The overall effect should be gradual and feel as if the notes are changing, rather than an abrupt shift from one octave to the next.

Octave Harmonics Transitions

For passages notated with harmonic octaves and transition arrows (found primarily near the end of the piece), the transition between lower octave and upper octave should be gradual and rich in overtones and/or frequency content (i.e. the transition should not feel "clean" but should sound a number of interesting harmonic/related pitches if possible).

Key-Clicks

Key-clicks are notated using open-note heads with a diagonal slash as seen in the example to the right.
**Harmonic Improvisation**

For sections marked as "free tonal/harmonic improvisation within specified harmonic series", the performer is free to improvise freely using pitches which fall within the first 12 harmonics/partial of the given fundamental frequency. During these sections, the computer is sounding pitches from within the same 12 harmonic note series. For convenience, only the first six harmonics for each given fundamental are shown in the score itself. The performer is free to transpose upper partials whose range falls outside the range of the instrument down an octave or two if desired.

Listed to the right are transcriptions of all 12 harmonics for each fundamental, rounded in pitch to the closest 1/4 tone.

Additionally, in cases where the range of the upper partials exceeds the range of the instrument, the performer is free to transpose those notes to lower registers.

**Improvisational Tongue-slaps**

For the section of the piece notated as such, the performer is free to engage the interactive computer part by articulating tongue slaps at different intensities and tings. The rest with fermata indicates that the performer is free to leave as much space in-between notes. When the performer is ready they can move on to the next measure.

**Graphical Score**

This score is *not the same*... *is not the same* makes an effort to show visual representations of the output from the computer system for the purpose of providing visual and contextual cues to the saxophonist. Whereas some figures depict real-time processes acting upon the saxophone input and/or other sonic materials being generated by the computer, others show representations of pre-recorded sounds. Such figures are not meant to be exact representations of the sounds, especially considering many of the patterns of playback and processing are somewhat chance-based and/or stochastic in nature. Instead the graphical figures should be taken as cues that can aid the performer in better understanding and playing with the computer generated materials.

Details regarding specific computer notations can be found in the score section entitled Performance Notes - Computer.
Sectional Cues

There exist forty-one sectional cues in is the same... Is not the same that communicate between the performer and computer and allow for the synchronization of materials and the transition between sections of the piece. For ease of performance, many of these cues can be triggered automatically by dynamic amplitude or pitch tracking features found within the Max/MSP patch. Should the performer feel more comfortable with manual control over these section transitions, the section cues can be generated by a foot-pedal or key-selection on the computer keyboard (for optional 2nd player engineer). In addition, both the automatic cue-tracking and the manual cues can be used in conjunction with one another, if the performer wishes to use a combination of cue triggers.

Soundfile Playback

The waveform notation is used to signify the playback of a pre-recorded soundfile. In a number of places in the score, pre-recorded sections are triggered that feed into the real-time processing stream alongside the live saxophone’s microphone input.

Pitched Comb Filters

Pitched notations appearing in figures similar to this one indicate a progression of pitches which will be generated from the input audio stream using real-time comb filters. The indicated pitches are notated in the key of Eb for ease of performance for the saxophonist and are tuned based on a standard frequency of A 440.

Cymbal sweeps

The notations seen here represent pre-recorded and processed cymbal samples. The larger dark figure represents a single percussive cymbal-group (consisting of 10-20 concurrent samples). The smaller grey set of reversed cymbal samples create a wash or sweep of high cymbal frequencies.

"Bell" sweeps

Note clusters in angled boxes in the computer staff represent pre-recorded and processed pitched materials which are triggered at the specified time. In is the same... Is not the same... there are five separate such note clusters within the piece and a significant amount of pitch material found in the saxophone writing is derived from these samples. As this is the case, it is important that the output levels of the computer part be set at a sufficiently strong level to allow these samples to project clearly.

Computer note glissandi

Individual notes and glissandi arrows in the computer staff represent specific pitches (in Eb) and glissandi between specified pitches. The sound material for each instance of individual computer notes varies as pre-recorded samples of a variety of sources are mixed with real-time filtered input from other computer sources as well as the live saxophone.

Hardware/Software Requirements

is the same... Is not the same was designed to be performable on a moderately-powered laptop computer (2004-2005). At the time of this writing, the Max/MSP patch can be run adequately on an 867 Mhz Apple iBook with 500 Mb of RAM, though faster machines with more RAM can always increase system performance and stability.

All output from the computer system is in Stereo and should be performed with speakers in a standard stereo-imaging configuration either on a stage or elevated above the stage.

For use of a MIDI footpedal for cue triggering, a MIDI interface and footpedal are required. The use of a mono contact/clip microphone for the saxophone is preferable, or any microphone setup that prevents the microphone from picking up audio output from the on-stage speaker system.
**program notes**

*is the same... is not the same* - commissioned by saxophonist and composer C.R. Kasprzyk - is a multi-leveled development of a five-note theme from Paul Creston's Sonata for Alto Saxophone and Piano. Written in the Fall of 2004, the piece draws inspiration and its title from the words of composer Narcis Bonet. Through rhythmic and harmonic variation of the saxophone part, coupled with real-time and pre-recorded transformations of pitched and unpitched sound materials, *is the same... is not the same*, attempts to create a continuously shifting sound world where the interactions between saxophonist and computer can range from complementary and harmonious to confrontational and antagonistic.

*is the same... is not the same* was realized at the CCMIX studios in Paris, France. Sounds generated for the piece were created using a variety of tools including Max/MSP, UPIC and KYMA.

Robert Hamilton  
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Paris, France
is the same... is not the same

for alto saxophone and computer

Robert Hamilton
other works by Robert Hamilton

available from Chateau de Singe Publications

is the same... is not the same (2004)
- alto saxophone and computer
- for C.R. Kaspryzk
- 14'

i have four pictures of you sleeping (2004)
- solo violin
- for Sergio Martinelli
- 5'

piano interactions #1 & #2 (2003/4)
- piano and computer
- 6' (4/3)

museau de singe (2003)
- double bass, piano and computer
- for Jeremy Bagayos
- 11'

for more information email: robert_k_hamilton@yahoo.com